REMARKS/ARGUMENTS

This is in response to the Office Action dated July 20, 2009 and the Advisory Action, dated October 26, 2009. Claims 1-2, 4 and 6-15 are pending and stand rejected in the outstanding Office Action. Claims 1-2, 4, 12 and 13 have been amended. Claims 3, 5 and 16 have been cancelled.

The rejection of claim 1 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Numaoka (US 2001/0038386) in view of Kaji (US 6,501,568) and Minoru (JP 2000-202162) is respectfully traversed.

Amended claim 1 (incorporating the limitations of claims 3 and 5, now cancelled) recites "wherein a weighted value equal to or greater than a sum of weighted values of objects other than the player character is dynamically assigned to the player character". Numaoka/Kaji/Minoru does not teach or suggest this feature.

None of the cited references discloses <u>dynamically</u> assigning, to a player character which is operable by a player, a weight equal to or greater than a sum of the weights of the objects other than the player character. Regarding claims 3 and 5, the Examiner cited Kaji (Fig. 2, col. 4, line 10 to col. 5, line 3), as allegedly teaching the above feature, and stated that the above section in Kaji teaches how weights are assigned to objects, therefore "it would be obvious that a main player character would have a higher weight in comparison to other objects or players since the focus on a screen is more on that player", and that "Fig. 2 notes the 'attention degree' is greater than the weights of the other objects", see pp. 4-5 of the Office Action of July 20, 2009.

Even though Kaji teaches assigning attention degrees/weights to objects, nowhere in Kaji is there a teaching or suggestion that <u>a player character</u> is assigned a weight that is equal or greater than the sum of the weights of all the other objects other than the player character, let

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alone teach or suggest that this assigning is done <u>dynamically</u>. The Examiner's obvious to try rationale is clearly based on Applicant's own specification as a template for hindsight reconstruction. Moreover, cited Fig. 2 only shows that Object B has the highest attention degree/weight, but it does not teach that Object B is a player character.

In response to Applicant's argument, filed with the Response of October 15, 2009, that Numaoka/Kaji/Minoru fails to teach or suggest determining a barycenter of the objects based on the weighted value and the positions of the objects, the Examiner asserted that, in Numaoka, a barycenter calculator 5 calculates the barycenter of a change between two consecutive frames, and that this calculation is saved to the barycenter coordinates memory. Therefore, according to the Examiner, this "denotes that the data provided by the barycenter calculator includes positions because coordinates are used for showing a position or location of an object in space", see the Advisory Action of October 26, 2009.

In Numaoka, the barycenter calculator provides data related to the barycenter <u>based on the change of the image between two successive frames</u> (see [0024], "The change in the image is transferred to the barycenter calculator 5 where it is used to calculate the barycenter <u>of the change</u> which is then saved in the barycenter coordinates memory 6", emphasis added). The Examiner is correct in stating that the barycenter calculator includes positions. However, these positions are the positions of the <u>barycenter itself</u> based on the change in the image between two successive frames. A barycenter based on the change of the image between two successive frames is <u>not the same</u> as a barycenter based on the positions of individual objects. For example, in the extreme case where the two successive frames are identical, then the barycenter would be at (0, 0) (since Numaoka teaches that in the other barycenter coordinates memory 7, the barycenter is initialized to (0, 0), see [0024]). However, depending on the locations of the

various objects, the barycenter of the invention of claim 1 is away from point (0, 0). Hence, it is clear that the calculation of the barycenter in Numaoka is completely different from the calculation of the barycenter in the invention of claim 1.

In addition, even though Kaji discloses assigning an "attention degree"/weight to each object, this is done for the purpose of adjusting the sight lines in a stereoscopic display device, e.g., a head mount display. This is completely different from Numaoka where the view point of a virtual camera dynamically responds to the movement of the mobile set equipped with a display. In other words, one of ordinary skill in the art would not have looked into Kaji to modify the stabilization method of Numaoka. Namaoka discloses calculating a change to the barycenter based solely on a change in image between two frames. In particular, Numaoka discloses a frame difference calculator 4 for calculating an optical flow between the two successive frames. Even if objects in an image is Numaoka's system were assigned attention degrees as in Kaji, this newly added data would be meaningless to the frame difference calculator, which only calculates optical flow. That is, Namaoka's frame difference calculator 4 would not know how to interpret the newly added attention degree data since it merely determines optical flow.

Moreover, the Examiner has not explained how to modify Numaoka using the weights taught by Kaji, and more specifically, the Examiner has not indicated how to use the weights of individual objects to calculate the barycenter based on the change in the image between two successive frames.

Minoru fails to cure the deficiencies of Numaoka/Kaji.

For the above reasons, claim 1 is allowable. Claims 12 and 13 include limitations similar to those of claim 1 and are also allowable.

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It is respectfully requested that the rejection of claims 2, 4, 6-11 and 14-15, all dependent from independent claim 1 or 13, also be withdrawn.

In view of the foregoing and other considerations, all claims are deemed in condition for allowance. A formal indication of allowability is earnestly solicited.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

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